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Papiya Bhattacharjee* (pxb39@psu.edu). *The spaces $Min(L)$ and $Min(L)^{-1}$.*

A frame is a complete lattice which satisfies a strong distributive law, also called the ‘frame law’. Some examples of frames are the following: For any topological space (X, τ) , the collection of all open subsets, τ , is a frame under inclusion; For a commutative ring A with identity, $Rad(A)$, the collection of all radical ideals, is a frame under inclusion; For a lattice-ordered group G , $\mathcal{C}(G)$, the collection of all convex lattice-ordered subgroups, is a frame under inclusion.

Given a frame L , the collection of all minimal prime elements of L can be equipped with two topologies, namely, the Zariski topology (denoted by $Min(L)$) and the inverse topology (denoted by $Min(L)^{-1}$). In this talk the speaker will describe these two topologies and give conditions on L for the spaces $Min(L)$ and $Min(L)^{-1}$ to have various topological properties, for example, compact, locally compact, Hausdorff, and zero-dimensional. Finally, if time permits, the speaker will discuss the application of the various frame-theoretic conditions to commutative ring theory. (Received September 19, 2010)